Muhammad Abdullah
Middle Full Stack Developer | AI/ML Engineer

SUMMARY

Full Stack Developer and AI/ML Engineer with a solid foundation in computer science from the University of the Punjab and over two years of software engineering experience before transitioning to machine learning. Proficient in creating scalable ML pipelines and backend development, with hands-on expertise in Hugging Face, LangChain, and vector databases like Pinecone and FAISS. Technical skill set includes Python, Flask, Django, and cloud services across AWS, GCP, and Azure, with a focus on applying NLP, LLMs (GPT, BERT, LLaMA), and AI automation to practical business processes. Proven track record in ML workflow optimization, MLOps, and DevOps, underscored by significant improvements in automation efficiency, authentication reliability, and data processing times.

TECHNICAL SKILLS

Main Technical Skills	AI-agents, NLP (2 yr.), Hugging Face (2 yr.), WebSockets (5 yr.)
Programming Languages	JavaScript (5 yr.)
AI & Machine Learning	AI-agents, Amazon Machine learning services (5 yr.), AWS ML (Amazon Machine learning services) (5 yr.), BERT (2 yr.), Hugging Face (2 yr.), NLP (2 yr.), OpenCV (5 yr.), RAG (5 yr.), Scikit-learn (5 yr.)
JavaScript Frameworks	Angular (4 yr.), Lodash (5 yr.), React (3 yr.)
.NET Platform	ASP.NET Core Framework (5 yr.)
Python Libraries and Tools	Beautiful Soup (5 yr.), Scikit-learn (5 yr.)
Mobile Frameworks and Libraries	Crashlytics (5 yr.)
Python Frameworks	Django REST framework (5 yr.), FastAPI (5 yr.)
Java Frameworks	Play Framework (5 yr.)
Scala Frameworks	Play Framework (5 yr.)
Salesforce Ecosystem	Salesforce Lightning Component (5 yr.)
PHP Frameworks	Zend (5 yr.)

Data Analysis and Visualization Technologies	Data Analysis (5 yr.), Data Scraping (5 yr.)
Databases & Management Systems / ORM	ORM (5 yr.), relational databases (5 yr.), Supabase (5 yr.)
UI Frameworks, Libraries, and Browsers	Socket.io (5 yr.), XML (5 yr.)
Cloud Platforms, Services & Computing	AWS (5 yr.), GCP (5 yr.)
Amazon Web Services	AWS Cloudformation (5 yr.), AWS ML (Amazon Machine learning services) (5 yr.)
Azure Cloud Services	Azure App Service (5 yr.), Azure DevOps (5 yr.), Azure Logic Apps (5 yr.)
Google Cloud Platform	GCP Storage (5 yr.)
Message/Queue/Task Brokers	Celery (5 yr.), Kafka (5 yr.), RabbitMQ (5 yr.)
Deployment, CI/CD & Administration	CI/CD (5 yr.)
Methodologies, Paradigms and Patterns	DRY (5 yr.), Publish/Subscribe Architectural Pattern (5 yr.), Scrum (5 yr.)
SDK / API and Integrations	FastAPI (5 yr.), JWT (5 yr.), Stripe (5 yr.)
Version Control	Git (5 yr.)
Mail / Network Protocols / Data transfer	JWT (5 yr.), WebSockets (5 yr.)
QA, Test Automation, Security	Playwright (5 yr.), QA Automation (5 yr.), Selenium (5 yr.)
UI/UX/Wireframing	Prototyping (5 yr.)
Other Technical Skills	Third-Party Applications (5 yr.), Unreal Engine (5 yr.)

WORK EXPERIENCE

Full Stack Developer & AI/ML Engineer, Conversational AI Chatbot

Summary: Developed a conversational AI chatbot for healthcare providers to automate note-taking during doctor-patient interactions, enabling secure data integration with EHR systems.

Responsibilities: Developed AI chatbot, integrated speech-to-text for medical term extraction, created secure data processing pipeline.

Technologies: REST API, AWS Amplify, Firebase, Cognito, Lambda, DynamoDB, Anthropic AI, Socket.io

Full Stack Developer & AI/ML Engineer, Zomato Automation System

Summary: Built an automation platform using web scraping for multi-restaurant data analysis, including real-time dashboards for monitoring customer behavior and restaurant performance.

Responsibilities: Scrapping and data processing, dashboard development for data analytics.

Technologies: Web Automation, Data Scraping, Python, Pandas, Selenium, BeautifulSoup, Azure, PostgreSQL

Full Stack Developer & AI/ML Engineer, Product Searching and Recommendation System

Summary: Designed a visual product search and recommendation system, employing deep learning techniques for image feature extraction and effective product retrieval.

Responsibilities: Developed search and recommendation features, image feature extraction.

Technologies: Web Scraping, Python, Keras, VGG16, ResNet, MongoDB, AWS, Angular

Full Stack Developer & AI/ML Engineer, Formula 1 Winning Driver Predictive Model

Summary: Engineered machine learning model to forecast Formula 1 driver performance with real-time processing and dissemination of results to stakeholders.

Responsibilities: ML model development, data pipeline creation, real-time inference and data streaming.

Technologies: Machine Learning, AWS (Lambda, S3, EC2, DynamoDB)

Full Stack Developer & AI/ML Engineer, Document Processing System

Summary: Built a custom document processing system with Transformer models and SpaCy for parsing resumes, extracting data, and storing results in a database with proper archiving.

Responsibilities: Developed document processing system, created data extraction and storage pipeline.

Technologies: NLP, Python, AWS SageMaker, Lambda, DynamoDB, S3, Transformers, SpaCy

EDUCATION

- **Bachelor of Science in Computer Science**
- University of the Punjab, Lahore, Pakistan
- 2017 - 2021